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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,933	09/05/2003	Heather Ellen Bergeron	HES-003CP2	9221
51414	7590	01/12/2006	EXAMINER	
GOODWIN PROCTER LLP PATENT ADMINISTRATOR EXCHANGE PLACE BOSTON, MA 02109-2881			THAI, CANG G	
			ART UNIT	PAPER NUMBER
			3629	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,933

Applicant(s)

BERGERON ET AL.

Examiner

Cang G. Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/05/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 09/05/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,246,975 (RIVONELLI ET AL).

As for claim 1, RIVONELLI discloses a method, comprising:

receiving a request associated with a plurality of entities {Column 9, Lines 38-40, wherein this reads over “receiving at least one intervention input by the user, and evaluating the user responsive to the intervention and predetermined criteria”};

identifying a sequence of transactions associated with the request {Column 25, Lines 31-33, wherein this reads over “for each health state PS described by the list of selected HAS instances, we then identify in all the courses of action that are relevant to PS”};

executing at least some of the transaction sequence to form an instance of a semantic network, the semantic network instance including at least one relationship between the plurality of entities {Column 9, Lines 42-44, wherein this reads over “a computer system and computer readable tangible medium is provided that stores the process thereon, for execution by the computer ”}; and

processing the request based, at least in part, on the semantic network {Column 5, Lines 30-33, wherein this reads over “The processes function to evolve the patient forward (to reflect progression of the disease process and response to interventions) and backward in time (to create a past history for the patient.)”}.

As for claim 2, RIVONELLI discloses the method of claim 1, wherein the plurality of entities correspond to at least two different entity types interacting in an industry {Column 12, Lines 1-4, wherein this reads over “The computer-based testing system of the present invention partitions knowledge into fundamental types: Health States, Agents, Findings, Specific Findings, Patterns and Sub-patterns describe system behaviors and characteristics”}.

As for claim 3, RIVONELLI discloses the method of claim 2, wherein the industry is a service-based industry and the at least two different entity types correspond to at least two of a service provider, a service implementer, a service purchaser, a service beneficiary, a service maintainer, and a service regulator {Column 47, Lines 13-19, wherein this reads over “Consequently, if a particular physician or group of physicians are determined to be expensive for an insurance company or health care group, and the computer based system shows that the physicians are likely to provide appropriate

care, then it is possible that this physician or group of physicians have a particularly expensive patient population”}.

As for claim 4, RIVONELLI discloses the method of claim 2, wherein the industry relates to a health care industry and the at least two different entity types correspond to at least two of a health care subscriber, a health care provider, a health care practitioner, a health care beneficiary, and a health care company Column 47, Lines 13-19, wherein this reads over “Consequently, if a particular physician or group of physicians are determined to be expensive for an insurance company or health care group, and the computer based system shows that the physicians are likely to provide appropriate care, then it is possible that this physician or group of physicians have a particularly expensive patient population”}.

As for claim 5, RIVONELLI discloses the method of claim 2, wherein the industry is a product-based industry and the at least two different entity types correspond to at least two of a product manufacturer, a product distributor, a product reseller, a product marketer, a product seller, a product purchaser, a product maintainer, and a product regulator {Column 28, Lines 66-67, wherein this reads over “The Cartesian product of two active, linear parallel health condition networks, P and C, yields a two dimensional web”}.

As for claim 6, RIVONELLI discloses the method of claim 1, further comprising:  
storing indicia associated with the request in a data structure {Column 14, Lines 44-45, wherein this reads over “The model will be the foundation of a family practice knowledge base storing data about family medicine”}; and

assigning a version number to the data structure {Column 46, Lines 47-50, wherein this reads over "Switching to the forward version, the patient evolution process, the computer process looks forward in time instead of backwards in time"}.

As for claim 7, RIVONELLI discloses the method of claim 6, further comprising:

based, at least in part, on the version number of the data structure, re-executing at least some of the transaction sequence to reprocess the request {Column 6, Lines 43-47, wherein this reads over "random number generation is used to select a "master percentile" (MP) which then serves as the reference for selecting particular patterns, findings and sub patterns from the appropriate specified distributions"}.

As for claim 8, RIVONELLI discloses the method of claim 1, wherein the request is received from an electronic data interchange system {Column 8, Lines 22-26, wherein this reads over "The information is collected in paper template form, and then transferred into computer-readable format using, for example, any standard Knowledge Acquisition (KA) tool to enter the information into an object-oriented database"}.

As for claim 9, RIVONELLI discloses the method of claim 1, wherein the request is received from at least one of an application program interface, a user interface, and a software editing tool {Column 14, Lines 47-50, wherein this reads over "Specific software applications might involve medical records, structured vocabularies, medical reference tools, decision support systems, and continuing education programs"}.

As for claim 10, RIVONELLI discloses the method of claim 1, further comprising:

representing the request in a natural language format exhibiting a fixed context and a fixed grammar {Column 48, Lines 34-39, wherein this reads over "memory media

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such as floppy disks, or a CD ROM, or a digital video disk will contain, for example, a multi-byte locale for a single byte language and the program information for controlling the computer to enable the computer to perform the functions described herein”}.

As for claim 11, RIVONELLI discloses the method of claim 10, wherein the fixed grammar exhibits a Backus-Naur format {Column 51, Lines 11-13, wherein this reads over “the present invention may be applied across a broad range of programming languages that utilize similar concepts as described herein”}.

As for claim 12, RIVONELLI discloses the method of claim 10, wherein the fixed context is based, at least in part, on an industry-specific data structure, the industry-specific data structure being used to identify operations associated with the transaction sequence {Column 22, Lines 1-3, wherein this reads over “Current reference systems use the structure of medical publications and lists of abstracted subject headings to facilitate searches through very large databases”}.

As for claim 13, RIVONELLI discloses the method of claim 10, further comprising:

parsing the natural language representation of the request into a plurality of fields {Column 14, Lines 9-10, wherein this reads over “Adjustments range from changing interview style to altering treatments”}; and

mapping at least some of the fields into at least one data structure {Column 14, Lines 10-13, wherein this reads over “ Variability in patient attitudes limits the likelihood that there exists one best answer for groups of patients with similar medical conditions”}.

As for claim 14, RIVONELLI discloses the method of claim 13, further comprising:

assigning a version number to the at least one data structure {Column 46, Lines 47-50, wherein this reads over "Switching to the forward version, the patient evolution process, the computer process looks forward in time instead of backwards in time"}.

As for claim 15, RIVONELLI discloses the method of claim 1, wherein the at least one relationship corresponds to at least one contractual provision associated with the plurality of entities {Column 28, Lines 66-67, wherein this reads over "The Cartesian product of two active, linear parallel health condition networks, P and C, yields a two dimensional web"}.

As for claim 16, RIVONELLI discloses the method of claim 1, wherein the request corresponds to at least one of a request for payment of services performed, a request to authorize proposed services, a request to enroll a service provider, a request to enroll a service purchaser, a request to enroll a service beneficiary, and an adoption of a new contract {Column 47, Lines 13-19, wherein this reads over "Consequently, if a particular physician or group of physicians are determined to be expensive for an insurance company or health care group, and the computer based system shows that the physicians are likely to provide appropriate care, then it is possible that this physician or group of physicians have a particularly expensive patient population"}.

As for claim 17, RIVONELLI discloses the method of claim 1, further comprising: forming an electronic message in response to detecting an error during the execution of the transaction sequence {Column 50, Lines 2-5, wherein this reads over "A System



State might include an error in a supervising computer's code, leading the complex system to respond inappropriately in some situation"}.

As for claim 18, RIVONELLI discloses the method of claim 1, wherein indicia associated with the plurality of entities correspond to a plurality of nodes in the semantic network and the at least one relationship corresponds to at least one link interconnecting at least some of the plurality of nodes in the semantic network {Column 47, Lines 59-61, wherein this reads over "A bus 56 serves as the main information highway interconnecting the other components of the computer"}.

As for claim 19, RIVONELLI discloses the method of claim 1, further comprising: querying data structures associated with the semantic network {Column 5, Lines 30-33, wherein this reads over "The processes function to evolve the patient forward (to reflect progression of the disease process and response to interventions) and backward in time (to create a past history for the patient.)"}; and

in response to the query, forming an electronic document containing indicia associated with the plurality of entities and the at least one relationship, wherein the electronic document is viewable in a natural language format exhibiting a fixed context and a fixed grammar {Column 48, Lines 34-39, wherein this reads over "memory media such as floppy disks, or a CD ROM, or a digital video disk will contain, for example, a multi-byte locale for a single byte language and the program information for controlling the computer to enable the computer to perform the functions described herein"}.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

I. U.S. Patent:

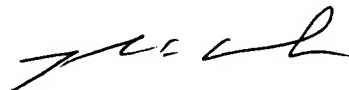
- 1) U.S. Patent No. 6,845,393 (MURPHY ET AL) is cited to teach lookup discovery service in a distributed system having a plurality of lookup services each with associated characteristics and services,
- 2) U.S. Patent No. 6,263,335 (PAIK ET AL) is cited to teach information extraction system and method using concept-relation-concept (CRC) triples, and
- 3) U.S. Patent No. 6,108,635 (HERREN ET AL) is cited to teach integrated disease information system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cang (James) G. Thai whose telephone number is (571) 272-6499. The examiner can normally be reached on 6:30 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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